

Title (en)

SUPPORT FOR PARTS TO BE HEAT TREATED IN A FURNACE, AND A HEAT TREATMENT METHOD FOR METAL PARTS

Title (de)

TRÄGER FÜR IN EINEM OFEN WÄRMEZUBEHANDELNDE TEILE UND WÄRMEBEHANDLUNGSVERFAHREN FÜR METALLTEILE

Title (fr)

SUPPORT POUR PIECE A TRAITER THERMIQUEMENT DANS UN FOUR, ET PROCEDE DE TRAITEMENT THERMIQUE D'UNE PIECE METALLIQUE.

Publication

EP 1356247 A1 20031029 (FR)

Application

EP 01995793 A 20011226

Priority

- FR 0104197 W 20011226
- FR 0017168 A 20001228

Abstract (en)

[origin: WO02053997A1] A support slug (2) used for the heat treatment of a part (3), particularly for the hardening of a steel part, characterised by the fact that it comprises a guide element (221) that is used to guide the part (3) towards a supporting surface (230) of the support slug (2) when said part is being positioned on the support slug. The supporting surface (230) is characterised by a ceramic element (23) embedded in the metal body (20) of the support slug.

IPC 1-7

F27D 5/00; **C21D 9/00**

IPC 8 full level

C21D 1/00 (2006.01); **C21D 9/00** (2006.01); **C21D 9/32** (2006.01); **F27D 3/12** (2006.01); **F27D 5/00** (2006.01)

CPC (source: EP KR US)

C21D 9/0025 (2013.01 - EP US); **F27D 5/00** (2013.01 - EP KR US); **Y10S 269/903** (2013.01 - EP US)

Citation (search report)

See references of WO 02053997A1

Designated contracting state (EPC)

AT DE ES FR GB IT

DOCDB simple family (publication)

WO 02053997 A1 20020711; AT E290196 T1 20050315; DE 60109211 D1 20050407; DE 60109211 T2 20060216; EP 1356247 A1 20031029; EP 1356247 B1 20050302; ES 2234931 T3 20050701; FR 2819047 A1 20020705; FR 2819047 B1 20030627; JP 2004535512 A 20041125; KR 20030067721 A 20030814; US 2005100852 A1 20050512; US 6939131 B2 20050906

DOCDB simple family (application)

FR 0104197 W 20011226; AT 01995793 T 20011226; DE 60109211 T 20011226; EP 01995793 A 20011226; ES 01995793 T 20011226; FR 0017168 A 20001228; JP 2002554458 A 20011226; KR 20037008619 A 20030625; US 45182803 A 20030625